What is claimed is:

1. A composition OVT102 having an amino acid sequence as shown in SEQ ID NO: 1.

2. A composition which is a protein having an amino acid sequence substantially identical to that of wild-type cyanovirin (CVN), and having an additional amino acid sequence X_n at the N-terminal wherein X is an amino acid residue other than cysteine, and n is an integer that is at least 1, wherein the protein has an increased therapeutic index compared to CVN.

3. The composition according to claim 2, wherein the protein has increased antiviral activity compared to CVN.

4. The composition according to claim 2, wherein the protein has decreased toxicity to an animal cell compared to CVN.

5. The composition according to claim 2, wherein n is 1.

6. The composition according to claim 2 (met-CVN), wherein X comprises at least one methionine residue.

7. The composition according to claim 3, wherein the increase in antiviral activity of the protein compared to CVN is at least 10%.

8. The composition according to claim 3, wherein the increase in antiviral activity of the protein is at least 20%.

9. The composition according to claim 3, wherein the increase in antiviral activity of the protein is at least 50%.

10. The composition according to claim 3, wherein the increase in antiviral activity of the protein is at least 100%.

11. The composition according to claim 3, wherein the antiviral activity is reducing infectivity of an enveloped virus.

12. The composition according to claim 11, wherein the virus is a retrovirus.

13. The composition according to claim 11, wherein the retrovirus is selected from an influenza virus, an immunodeficiency virus, a lymphotropic virus, and a leukemia virus.

14. The composition according to claim 13, wherein the immunodeficiency virus is selected from HIV-1, HIV-2, SIV, and FIV.

15. The composition according to claim 13, wherein the immunodeficiency virus is HIV-1 or HIV-2.

16. The composition according to claim 15, wherein the increased antiviral activity is increased affinity for gp120 of HIV.

17. The composition according to claim 11, wherein the enveloped virus is selected from the group of a herpesvirus, a poxvirus, an African Swine Fever virus, a togavirus, a coronavirus, a flavivirus, a paramyxovirus, a rhabdovirus, an arenavirus, and a bunyavirus.

18. The composition according to claim 11, wherein the virus is causative of a disease selected from the group of: influenza, AIDS, Herpes I, Herpes II, hepatitis, smallpox, chicken pox, severe acute respiratory syndrome (SARS), and Ebola.

19. A composition comprising a protein having an amino acid sequence substantially identical to that of CVN (SEQ ID NO: 2) and having at least one additional N-terminal amino acid residue, wherein the protein has enhanced antiviral activity compared to CVN.

20. A composition according to claim 19, wherein the residue is a hydrophobic amino acid.

21. The composition according to claim 19, wherein substantially identical to CVN is at least 70% identical.

22. The composition according to claim 21, wherein substantially identical to CVN is at least 80% identical.

23. The composition according to claim 22, wherein substantially identical to CVN is at least 90% identical.

24. The composition according to claim 20, wherein the hydrophobic residue is selected from the group of methionine (M), isoleucine (I), leucine (L), histidine (H), tyrosine (Y), phenylalanine (F), and tryptophan (W).

25. The composition according to claim 19, wherein the amino acid is serine or threonine.

26. The composition of any of claims 1-25, in a pharmaceutically acceptable carrier.

27. The composition of any of claims 1-25 in an effective dose.

28. A kit for anti-viral treatment comprising a composition of any of claims 1-27, a container, and instructions for use.

29. A nucleic acid encoding the composition of any of claims 1-25.

30. A nucleic acid encoding a gene for expressing a composition according to any of claims 1-25 in a Gram-negative bacterium.

31. The nucleic acid according to claim 30, wherein the gene has codons optimized for expression in *Escherichia coli.*

32. A nucleic acid comprising a nucleotide sequence as shown in SEQ ID NO: 3.

33. A method for making an antiviral protein comprising expressing the nucleic acid of any of claims 29-32 in *E. coli.*

34. A method for treating a subject having an unwanted virus, the method comprising administering to the subject a dose of the composition of any of claims 1-27.

35. The method according to claim 34, wherein administering the dose is providing a topical medicament.

36. The method according to claim 34, wherein administering the dose is providing a parenteral medicament.

37. A method of preventing an unwanted viral infection in a subject, the method comprising administering to the subject a composition according to any of claims 1-25.

38. A method for removing an unwanted virus from an inanimate object, the method comprising contacting a surface of the object with a composition according to any of claims 1-25.

39. An article of manufacture comprising any of compositions 1-25 immobilized on a solid substrate.

40. The article according to claim 39, wherein the solid substrate is selected from the group consisting of a planar surface, a bead, a gel, and a fiber.

41. The article according to claim 40, wherein the planar surface comprises a material selected from the group consisting of a glass, mica, a metal oxide, and a plastic.

42. The article according to claim 41, wherein the plastic is selected from the group consisting of polystyrene, polyester, polycarbonate, polyethylene, polypropylene, and nylon.

43. A method for removal of a virus from a bodily fluid, the method comprising contacting the fluid with the article of manufacture according to claim 39, wherein the virus remains associated with the article, and separating the article from the fluid, wherein the virus is removed from the fluid.

44. The method according to claim 43, wherein the fluid is selected from the group consisting of: blood, serum, lymph, plasma, cerebrospinal fluid, semen, and amniotic fluid.

45. An antibody having affinity and specificity for an epitope comprising the N-terminus of a composition according to claim of claims 1-25.

46. The antibody according to claim 45, wherein the affinity is at least 10^{-8} M.

47. A cell carrying a vector with a nucleotide sequence as shown in SEQ ID NO: 3.

48. The cell according to claim 47 which is a bacterial cell.

49. The cell according to claim 48, wherein the bacterial cell is a species of a genus selected from: *Escherichia*, *Bacillus*, *Lactobacillus*, *Sporolactobacillus*, and *Streptomyces*.

50. A probiotic antiviral medicament for treatment of an epithelial surface of an animal for an unwanted virus, the medicament comprising the cell according to claim 49 which is a *Bacillus*, *Lactobacillus*, or a *Sporolactobacillus*.

51. The medicament according to claim 50 in an effective dose.

52. The medicament according to claim 50 in a pharmaceutically acceptable carrier or buffer.

53. The medicament according to claim 50, wherein the cell is a stabilized spore preparation.

54. The medicament according to claim 50, wherein the epithelial surface is a mucosal surface.

55. The medicament according to claim 50, wherein the surface is selected from oral, nasal, rectal, vaginal, and penile epithelia.

56. A method of preventing or treating an animal epithelium for the presence of an unwanted virus, the method comprising administering a probiotic antiviral medicament comprising a lactic acid bacterium capable of expressing OVT 102 having an amino acid sequence as shown in SEQ ID NO: 1.

57. The method according to claim 56, wherein the animal is a human.

58. The method according to claim 56, wherein the virus is an enveloped virus.

59. The method according to claim 56, wherein the virus is a retrovirus.

60. The composition according to claim 59, wherein the retrovirus is selected from an influenza virus, an immunodeficiency virus, a lymphotropic virus, and a leukemia virus.

61. The composition according to claim 60, wherein the immunodeficiency virus is selected from HIV-1, HIV-2, SIV, and FIV.

62. The method according to claim 58, wherein the enveloped virus is selected from the group of a herpesvirus, a poxvirus, an African Swine Fever virus, a togavirus, a coronavirus, a flavivirus, a paramyxovirus, a rhabdovirus, an arenavirus, and a bunyavirus.

63. The method according to claim 56, wherein the virus is causative of a disease selected from the group of: influenza, AIDS, Herpes I, Herpes II, hepatitis, smallpox, chicken pox, severe acute respiratory syndrome (SARS), and Ebola.

64. A kit for diagnosis of an enveloped virus comprising any of the compositions of claims 1 and 2 above, a container, and instructions for use.

65. The kit of claim 64 further comprising an antibody.